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EXAMINER	
BELANI, KISHIN G	

ART UNIT	PAPER NUMBER
2443	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/591,163	KATO ET AL.	
	Examiner	Art Unit	
	KISHIN G. BELANI	2443	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 August 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 August 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *8/30/06, 4/2/09, 3/22/10*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d) to claim foreign priority, which papers have been placed of record in the file.

Information Disclosure Statement

The information disclosure statements submitted on 08-30-2006 and 04/02/2009 have been considered by the Examiner and made of record in the application file.

Preliminary Amendment

The present Office Action is based upon the original patent application filed on 08-30-2006 as modified by the preliminary amendment filed on 08-30-2006. Claims 1-18 are now pending in the present application.

Title

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Specification

The disclosure is objected to because of the following informalities:

- The abstract contains two paragraphs. Only a single paragraph of 150 words or less is permissible. Please check the word count and limit it to 150 words in a single paragraph.
- On line 9 of the abstract, replace "sends the received to" by – sends the received data to --
- In paragraph 0002 of the specification, reference is made to "Patent Document 1" that is not previously identified.
- On page 3, line 5, change "an other device" to – another device --
- On page 4, line 3, change "whether to or not" to – whether or not --
- On page 8, line 12, change "data-sent" to – data sent --
- On page 9, line 22, change "and joined" to – and joining --
- On page 16, line 19, change "Device Description" to – Service Description --

Appropriate correction is required.

Claim Objections

Claims 1 and 9 are objected to because of the following informalities:

In claim 1 line 7, change "with an other" to – with another –

In claim 9 line 5, change "with an other" to – with another –

Appropriate correction is required.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 18 is rejected under 35 U.S.C. 101 because the claim is directed to non-statutory subject matter. Claim 18 recites a storage medium storing a computer program that includes a computer readable medium which appears to cover both transitory and non-transitory embodiments. The United States Patent and Trademark Office (USPTO) is required to give claims their broadest reasonable interpretation consistent with the specification during proceedings before the USPTO. *See In re Zletz*, 893 F.2d 319 (Fed. Cir. 1989) (during patent examination the pending claims must be interpreted as broadly as their terms reasonably allow). The broadest reasonable interpretation of a claim drawn to a computer readable medium (also called machine readable medium and other such variations) typically covers forms of non-transitory tangible media **and** transitory propagating signals *per se* in view of the ordinary and customary meaning of computer readable media. *See* MPEP 2111.01. When the broadest reasonable interpretation of a claim covers a signal *per se*, the claim **must** be rejected under 35 U.S.C. § 101 as covering non-statutory subject matter. *See In re Nuijten*, 500 F.3d 1346, 1356-57 (Fed. Cir. 2007) (transitory embodiments are not directed to statutory subject matter) and *Interim Examination Instructions for Evaluating Subject Matter Eligibility Under 35 U.S.C. § 101*, Aug. 24, 2009; p. 2.

The Examiner suggests that the Applicant add the limitation "non-transitory computer storage medium" to the claim(s) in order to properly render the claims in statutory form in view of their broadest reasonable interpretation in light of the originally filed specification.

Claim 17 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. These claims disclose a "UI display apparatus" which is just software modules. Software per se (in the form of computer-executable instructions) is not patentable, unless stored on a computer-readable medium (such as a CD-ROM, diskette or a hardware drive, but not in the form of electromagnetic waveform).

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 18 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 18 uses the term "program and/or data", which makes the term indefinite as to whether program alone or data alone or both program and data are intended. Furthermore, if data only is implied, such data will not necessarily be executable by a computer, only computer programs are executable.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness
or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were

made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-3, 5-11, and 13-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Beecroft (U.S. Patent Publication # 6,760,415 B2)** in view of **Choi (U.S. Patent Application Publication # 2004/0150546 A1)** and further in view of **Takahashi, Hiroyuki (European Patent Application Publication # EP 1 028 368 A2, supplied as an IDS by the applicants).**

Consider **claims 1, 17, and 18,** Beecroft shows and discloses a UI display apparatus that displays, on a screen, a device connected to a network, and a computer executable program to provide functions of claim 1, and a storage medium to store the computer-executable program (system claims 1 and 12; Fig. 1 which shows a television 12 (a UI display apparatus) that displays a phone icon 20 on its screen, the phone icon representing a voice telephony device 16 connected to a PSTN network 24, as well as to a video processing device 14 connected to a video distribution network 22; column 3, line 64 through column 4, line 39 disclose the details of the UI display apparatus), said apparatus comprising:

a communication unit operable to communicate with **another** device connected to the

network (column 3, lines 64-66 which disclose that the television 12 is connected to a video processing device 14 (another device), which is connected to a video distribution network 22);

an obtainment unit operable to obtain, through said communication unit, device-related information relating to the device on the network (Fig. 2 that shows device-related information 46-48 (i.e. caller-ID capability) for the speakerphone that is shown as an icon 66 on the television screen 60 in Fig. 3, which also shows a set-top box (STB) 42 that includes means to obtain, through the communication link that connects the set-top box to the speakerphone (shown in Fig. 1), device-related information (such as caller-ID capability) of the speakerphone connected to the PSTN network 24, and Flash 86, Mute 88, and Hold 90 features of the speakerphone shown in Fig. 4; column 4, line 40 through column 5, line 55 disclose the same details); and

a display unit operable to display the device-related information obtained through said communication unit, in the case where said judgment unit judges that the device-related information is indicated in the display judgment information (Fig. 4 that shows an expanded view of the speakerphone icon 66 shown in Fig. 3 in minimized form displayed on the television screen 70; column 5, lines 25-30 which disclose that when the home user answers the call, the speakerphone widget 66 appears on the television screen 60 in its minimized but lit up state, indicating that the speakerphone is active; further disclosing that the minimized icon is not displayed unless the speakerphone call is in progress (i.e. the user has elected to answer the call by clicking on the answer button 50 shown in Fig. 2)).

However, Beecroft does not specifically disclose a recording unit in which display judgment information is recorded, the display judgment information indicating whether or not information should be displayed on the screen; a judgment unit operable to compare the device-related information obtained by said obtainment unit with the display judgment information recorded in said recording unit, and to judge whether or not the device-related information is indicated in the display judgment information; and ***a communication status recording unit operable to record a communication status for each communication protocol, in the case where said communication unit carries out communication using at least one or a combination of communication protocols.***

In the same field of endeavor, Choi shows and discloses the claimed recording unit in which display judgment information is recorded, the display judgment information indicating whether or not information should be displayed on the screen, and a judgment unit operable to compare the device-related information obtained by said obtainment unit with the display judgment information recorded in said recording unit, and to judge whether or not the device-related information is indicated in the display judgment information (abstract that describes a remote control service processing device which controls various devices of home network environment through the use of graphic user interface (GUI), collecting remote control service list information from the respective devices of the home network, storing the collected information in a storage unit, and providing a remote control service to a certain device of the connected devices to enable the certain device to remote control the other devices through the GUI, based

on the remote control service list information; Fig. 2, remote control service processing device 220 that includes a wired or wireless communication interface 222, storage unit 224 that matches remote control service list information responding to the corresponding remote controllers, and storing the information; as well as a remote control proxy server 226-2; paragraphs 0031-0034 disclose the same details; and paragraph 0039 which teaches that the remote control proxy server 226-2 may also provide an icon representation selection tool (not shown) for the user to choose whether to show the icons of Fig. 9 on the screen or not; claim 5 also discloses the same details).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to disclose a recording unit in which display judgment information is recorded, the display judgment information indicating whether or not information should be displayed on the screen; a judgment unit operable to compare the device-related information obtained by said obtainment unit with the display judgment information recorded in said recording unit, and to judge whether or not the device-related information is indicated in the display judgment information, as taught by Choi in the UI display apparatus of Beecroft, so as to provide a simple, user-specific graphical interface to the user.

However, Beecroft, as modified by Choi, does not specifically disclose ***a communication status recording unit operable to record a communication status for each communication protocol, in the case where said communication unit***

carries out communication using at least one or a combination of communication protocols.

In the same field of endeavor, Takahashi shows and discloses the claimed UI display apparatus, comprising ***a communication status recording unit operable to record a communication status for each communication protocol, in the case where said communication unit carries out communication using at least one or a combination of communication protocols*** (Figs. 18, 19, 21, 26, and 29 that show the status of various devices (under "Status" tab in Fig. 18) connected to the network, Fig. 19 displaying the reasons for device status not being ready; Fig. 26 providing additional details for each device's status; and Fig. 29 listing different protocols in use under "Setup" tab 1207; paragraphs 0073, 0077, and 0079 disclose the same details; flowcharts of Figs. 32 and Fig. 34, steps S3401-S3405 and the MIB (Management Information Base) database that is used to record the characteristics and status of each device in the network; paragraphs 0080-0091 describe the details of the recording unit (MIB database)).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a communication status recording unit operable to record a communication status for each communication protocol, in the case where said communication unit carries out communication using at least one or a combination of communication protocols, as taught by Takahashi, in the UI display apparatus of Beecroft, as modified by Choi, so as to provide a simple, user-specific graphical interface that includes statuses of user-specified devices to the user.

Consider **claim 2,** and **as it applies to claim 1 above,** Beecroft, as modified by Choi and Takahashi, further shows and discloses the claimed UI display apparatus, wherein the display judgment information recorded in said recording unit indicates at least one of: device type information indicating a type of the device; device information being information about the device itself; device service information indicating details about a service provided by the device; and service attribute information indicating an attribute of the service (in Beecroft reference, Figs. 2-3 that show the device service information indicating details about a service provided by the device (e.g. Caller ID service (shown in Fig. 2) and Flash, Mute, and Hold services (shown in Fig. 3), in addition to call-processing service provided by the speakerphone 92 recorded/stored in the set-top box 72; column 5, lines 14-55 disclose the same details; and in Choi reference, Fig. 2 that shows storage unit 224 used as a recording unit; paragraphs 0031-0034 further disclose the same details; and in Takahashi reference, Fig. 17 that displays device information for a plurality of devices; paragraph 0068 discloses the same details).

Consider **claim 3,** and **as it applies to claim 1 above,** Beecroft, as modified by Choi and Takahashi, further shows and discloses the claimed UI display apparatus, wherein the device-related information obtained by said obtainment unit indicates at least one of: device type information indicating a type of the device; device information being information about the device itself; device service information indicating details

about a service provided by the device; and service attribute information indicating an attribute of the service (in Beecroft reference, Figs. 2-3 that show the device service information indicating details about caller ID service shown in Fig. 2 being provided by the speakerphone device 78 to the set-top box 72 (obtainment unit) and Flash, Mute, and Hold services (shown in Fig. 3), in addition to call-processing service provided by the speakerphone 92, and recorded/stored in the set-top box 72; column 5, lines 14-55 disclose the same details; and in Choi reference, Fig. 2 that shows storage unit 224 used as a recording unit; paragraphs 0031-0034 further disclose the same details; and in Takahashi reference, Fig. 17 that displays device information for a plurality of devices; paragraph 0068 discloses the same details).

Consider **claim 5,** and **as it applies to claim 1 above,** Beecroft, as modified by Choi and Takahashi, further shows and discloses the claimed UI display apparatus, wherein said obtainment unit is operable to obtain the device-related information through said communication unit, using at least one or a combination of communication protocols (in Takahashi reference, Fig. 29 listing different protocols in use under "Setup" tab 1207; paragraphs 0073, 0077, and 0079 disclose the same details); and said display unit is operable to perform the display in accordance with the communication status recorded in said communication status recording unit and the device-related information obtained by said obtainment unit (in Takahashi reference, Figs. 18, 19, 21, 26, and 29 that show the status of various devices (under “Status” tab

in Fig. 18) connected to the network, Fig. 19 displaying the reasons for device status not being ready; Fig. 26 providing additional details for each device's status).

Consider **claim 6,** and **as it applies to claim 5 above,** Beecroft, as modified by Choi and Takahashi, further shows and discloses the claimed UI display apparatus, wherein the display is one of icon display and text display, and said display unit is operable to perform one of the icon display and the text display which corresponds to the device-related information, in the case where said judgment unit judges that the display should be performed (in Choi reference, Fig. 7 that displays selected devices in text form (PDP1v2 or Plasma Display Panel 1, version 2, and AMP421 or audio-visual amplifier 421) instead of being shown as icons, along with the services offered by each selected device and command issued by remote control service processing device; Fig. 9 that also shows DVD device being powered on in text form instead of in iconic form, thereby disclosing "text display" form of display of device-related information for selected devices; paragraph 0039 which teaches that the remote control proxy server 226-2 (shown in Fig. 2) may also provide an icon representation selection tool for the user to choose whether to show the icons on the screen or not, further disclosing the text form of representing devices and their associated information, including offered services; paragraph 0044 also describes the details shown in Fig. 7).

Consider **claim 7,** and **as it applies to claim 5 above,** Beecroft, as modified by Choi and Takahashi, further shows and discloses the claimed UI display apparatus,

wherein the display is one of icon display and text display, and said display unit is operable to perform one of the icon display and the text display differently for each communication status, in the case where said judgment unit judges that the display should be performed (in Beecroft reference, Figs. 3-4 that show the speakerphone icon in its minimized form (in Fig. 3) on the main screen when not in use, and in expanded state display form when in use (in Fig. 4); column 4, lines 34-35 which teach that the phone icon 66 is present when the speakerphone is in use, and lines 45-48 further teach that the icon also serves as an off-hook indicator when the speakerphone is in use, the expanded state provides a full range of speaker-phone functions; column 4, line 60 through column 5, line 5 further elaborate the same details, thereby disclosing that said display unit is operable to perform one of the icon display and the text display differently for each communication status).

Consider **claim 8,** and **as it applies to claim 1 above,** Beecroft, as modified by Choi and Takahashi, further shows and discloses the claimed UI display apparatus, further comprising an input update unit through which a user selects the display judgment information recorded in said recording unit and inputs and updates the selected information (in Choi reference, Fig. 2, control unit 226 that includes a remote control proxy server 226-2 and a database server 226-1, which together act as an input update unit that enables a user to select the device information stored in DB1 database within storage unit 24, to update by grouping select functions of different network devices, and create a new device identifier under which the grouped functions are

stored in DB2; Fig. 4 that further shows a signal flow in the process of setting user's frequently used functions of the devices connected in the network, and Fig. 5 that shows a signal flow in the executing of the selection made by the remote control service menu selection setting operations of Fig. 4; paragraphs 0043-0050 further disclose the details of updating by grouping different services offered by the connected devices, so that a selection item, realized as a hot-key through the use of GUI, can replace a series of complicated processes using plural remote controllers).

Consider **claim 9**, Beecroft shows and discloses a UI display method for use with a UI display apparatus that displays, on a screen, a device connected to a network (Fig. 1 which shows a television 12 (a UI display apparatus) that displays a phone icon 20 on its screen, the phone icon representing a voice telephony device 16 connected to a PSTN network 24, as well as to a video processing device 14 connected to a video distribution network 22; column 3, line 64 through column 4, line 39 disclose the details of the method used for the claimed UI display apparatus), said method comprising:
a communication step of communicating with **another** device connected to the network (column 3, lines 64-66 which disclose that the television 12 is connected to a video processing device 14 (another device), which is connected to a video distribution network 22);
an obtainment step of obtaining, through said communication step, device-related information relating to the device on the network (Fig. 2 that shows device-related information 46-48 (i.e. caller-ID capability) for the speakerphone that is shown as an

icon 66 on the television screen 60 in Fig. 3, which also shows a set-top box (STB) 42 that includes means to obtain, through the communication link that connects the set-top box to the speakerphone (shown in Fig. 1), device-related information (such as caller-ID capability) of the speakerphone connected to the PSTN network 24, and Flash 86, Mute 88, and Hold 90 features of the speakerphone shown in Fig. 4; column 4, line 40 through column 5, line 55 disclose the same details); and

a display step of displaying the device-related information obtained through said communication step, in the case where it is judged in said judgment step that the device-related information is indicated in the display judgment information (Fig. 4 that shows an expanded view of the speakerphone icon 66 shown in Fig. 3 in minimized form displayed on the television screen 70; column 5, lines 25-30 which disclose that when the home user answers the call, the speakerphone widget 66 appears on the television screen 60 in its minimized but lit up state, indicating that the speakerphone is active; further disclosing that the minimized icon is not displayed unless the speakerphone call is in progress (i.e. the user has elected to answer the call by clicking on the answer button 50 shown in Fig. 2)).

However, Beecroft does not specifically disclose a recording step of recording display judgment information indicating whether or not information should be displayed on the screen; a judgment step of comparing the device-related information obtained in said obtainment step with the display judgment information recorded in said recording step, and judging whether or not the device-related information is indicated in the display judgment information; and ***a communication status recording step of***

recording a communication status for each communication protocol, in the case where communication is carried out in said communication step, using at least one or a combination of communication protocols.

In the same field of endeavor, Choi shows and discloses the claimed recording step of recording display judgment information indicating whether or not information should be displayed on the screen, and a judgment step of comparing the device-related information obtained in said obtainment step with the display judgment information recorded in said recording step, and judging whether or not the device-related information is indicated in the display judgment information (abstract that describes a remote control service processing device which controls various devices of home network environment through the use of graphic user interface (GUI), collecting remote control service list information from the respective devices of the home network, storing the collected information in a storage unit, and providing a remote control service to a certain device of the connected devices to enable the certain device to remote control the other devices through the GUI, based on the remote control service list information; Fig. 2, remote control service processing device 220 that includes a wired or wireless communication interface 222, storage unit 224 that matches remote control service list information responding to the corresponding remote controllers, and storing the information; as well as a remote control proxy server 226-2; paragraphs 0031-0034 disclose the same details; and paragraph 0039 which teaches that the remote control proxy server 226-2 may also provide an icon representation selection

tool (not shown) for the user to choose whether to show the icons of Fig. 9 on the screen or not; claim 5 also discloses the same details).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to disclose a recording step of recording display judgment indicating whether or not information should be displayed on the screen; a judgment step of comparing the device-related information obtained by said obtainment step with the display judgment information recorded in said recording step, and judging whether or not the device-related information is indicated in the display judgment information, as taught by Choi in the UI display method of Beecroft, so as to provide a simple, user-specific graphical interface to the user.

However, Beecroft, as modified by Choi, does not specifically disclose ***a communication status recording step of recording a communication status for each communication protocol, in the case where communication is carried out in said communication step, using at least one or a combination of communication protocols.***

In the same field of endeavor, Takahashi shows and discloses the claimed UI display apparatus, comprising ***a communication status recording step of recording a communication status for each communication protocol, in the case where communication is carried out in said communication step, using at least one or a combination of communication protocols*** (Figs. 18, 19, 21, 26, and 29 that show the status of various devices (under "Status" tab in Fig. 18) connected to the network, Fig. 19 displaying the reasons for device status not being ready; Fig. 26 providing additional

details for each device's status; and Fig. 29 listing different protocols in use under "Setup" tab 1207; paragraphs 0073, 0077, and 0079 disclose the same details; flowcharts of Figs. 32 and Fig. 34, steps S3401-S3405 and the MIB (Management Information Base) database that is used to record the characteristics and status of each device in the network; paragraphs 0080-0091 describe the details of the recording unit (MIB database)).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a communication status recording step of recording a communication status for each communication protocol, in the case where communication is carried out in said communication step, using at least one or a combination of communication protocols, as taught by Takahashi, in the UI display method of Beecroft, as modified by Choi, so as to provide a simple, user-specific graphical interface that includes statuses of user-specified devices to the user.

Consider **claim 10,** and **as it applies to claim 1 above,** Beecroft, as modified by Choi and Takahashi, further shows and discloses the claimed UI display method, wherein the display judgment information recorded in said recording step indicates at least one of: device type information indicating a type of the device; device information being information about the device itself; device service information indicating details about a service provided by the device; and service attribute information indicating an attribute of the service (in Beecroft reference, Figs. 2-3 that show the device service information indicating details about a service provided by the device (e.g. Caller ID

service (shown in Fig. 2) and Flash, Mute, and Hold services (shown in Fig. 3), in addition to call-processing service provided by the speakerphone 92 recorded/stored in the set-top box 72; column 5, lines 14-55 disclose the same details; and in Choi reference, Fig. 2 that shows storage unit 224 used in a recording step; paragraphs 0031-0034 further disclose the same details; and in Takahashi reference, Fig. 17 that displays device information for a plurality of devices; paragraph 0068 discloses the same details).

Consider **claim 11,** and **as it applies to claim 9 above,** Beecroft, as modified by Choi and Takahashi, further shows and discloses the claimed UI display method, wherein the device-related information obtained in said obtainment step indicates at least one of: device type information indicating a type of the device; device information being information about the device itself; device service information indicating details about a service provided by the device; and service attribute information indicating an attribute of the service (in Beecroft reference, Figs. 2-3 that show the device service information indicating details about caller ID service shown in Fig. 2 being provided by the speakerphone device 78 to the set-top box 72 (obtainment unit) and Flash, Mute, and Hold services (shown in Fig. 3), in addition to call-processing service provided by the speakerphone 92, and recorded/stored in the set-top box 72; column 5, lines 14-55 disclose the same details; and in Choi reference, Fig. 2 that shows storage unit 224 used in a recording step; paragraphs 0031-0034 further disclose the same details; and

in Takahashi reference, Fig. 17 that displays device information for a plurality of devices; paragraph 0068 discloses the same details).

Consider **claim 13,** and **as it applies to claim 9 above,** Beecroft, as modified by Choi and Takahashi, further shows and discloses the claimed UI display method, wherein in said obtainment step, the device-related information is obtained through said communication step, using at least one or a combination of communication protocols (in Takahashi reference, Fig. 29 listing different protocols in use under "Setup" tab 1207; paragraphs 0073, 0077, and 0079 disclose the same details); and
in said display step, the display is performed in accordance with the communication status recorded in said communication status recording step and the device-related information obtained by said obtainment step (in Takahashi reference, Figs. 18, 19, 21, 26, and 29 that show the status of various devices (under “Status” tab in Fig. 18) connected to the network, Fig. 19 displaying the reasons for device status not being ready; Fig. 26 providing additional details for each device’s status).

Consider **claim 14,** and **as it applies to claim 13 above,** Beecroft, as modified by Choi and Takahashi, further shows and discloses the claimed UI display method, wherein the display is one of icon display and text display, and in said display step, one of the icon display and the text display which corresponds to the device-related information is performed, in the case where it is judged in said judgment step that the display should be performed (in Choi reference, Fig. 7 that displays selected devices in

text form (PDP1v2 or Plasma Display Panel 1, version 2, and AMP421 or audio-visual amplifier 421) instead of being shown as icons, along with the services offered by each selected device and command issued by remote control service processing device; Fig. 9 that also shows DVD device being powered on in text form instead of in iconic form, thereby disclosing "text display" form of display of device-related information for selected devices; paragraph 0039 which teaches that the remote control proxy server 226-2 (shown in Fig. 2) may also provide an icon representation selection tool for the user to choose whether to show the icons on the screen or not, further disclosing the text form of representing devices and their associated information, including offered services; paragraph 0044 also describes the details shown in Fig. 7).

Consider **claim 15,** and **as it applies to claim 13 above,** Beecroft, as modified by Choi and Takahashi, further shows and discloses the claimed UI display method, wherein the display is one of icon display and text display, and in said display step, one of the icon display and the text display is performed differently for each communication status, in the case where it is judged in said judgment step that the display should be performed (in Beecroft reference, Figs. 3-4 that show the speakerphone icon in its minimized form (in Fig. 3) on the main screen when not in use, and in expanded state display form when in use (in Fig. 4); column 4, lines 34-35 which teach that the phone icon 66 is present when the speakerphone is in use, and lines 45-48 further teach that the icon also serves as an off-hook indicator when the speakerphone is in use, the expanded state provides a full range of speaker-phone functions; column 4, line 60

through column 5, line 5 further elaborate the same details, thereby disclosing that said display unit is operable to perform one of the icon display and the text display differently for each communication status).

Consider **claim 16,** and **as it applies to claim 9 above,** Beecroft, as modified by Choi and Takahashi, further shows and discloses the claimed UI display method, further comprising an input update step through which a user selects the display judgment information recorded in said recording step and inputs and updates the selected information (in Choi reference, Fig. 2, control unit 226 that includes a remote control proxy server 226-2 and a database server 226-1, which together act as an input update unit that enables a user to select the device information stored in DB1 database within storage unit 24, to update by grouping select functions of different network devices, and create a new device identifier under which the grouped functions are stored in DB2; Fig. 4 that further shows a signal flow in the process of setting user's frequently used functions of the devices connected in the network, and Fig. 5 that shows a signal flow in the executing of the selection made by the remote control service menu selection setting operations of Fig. 4; paragraphs 0043-0050 further disclose the details of updating by grouping different services offered by the connected devices, so that a selection item, realized as a hot-key through the use of GUI, can replace a series of complicated processes using plural remote controllers).

Claims 4 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Beecroft (U.S. Patent Publication # 6,760,415 B2)** in view of **Choi (U.S. Patent Application Publication # 2004/0150546 A1)** and further in view of **Takahashi, Hiroyuki (European Patent Application Publication # EP 1 028 368 A2, supplied as an IDS by the applicants)** and further in view of **Castaldi et al. (U.S. Patent Application Publication # 2005/0005109 A1).**

Consider **claim 4,** and **as it applies to claim 1 above,** Beecroft, as modified by Choi and Takahashi, show and disclose the claimed UI display apparatus, further comprising authenticating whether or not the device-related information obtained by said obtainment unit has been sent from an authorized device, using an identifier to identify the device, wherein said display unit is operable to display the device-related information in the case where said device-related information is valid (in Takahashi reference, Figs. 1-2 and paragraphs 0050-0055 which disclose associating a registered name (e.g. "Device-A") in a MIB database for an MFP (Multi-Function Peripheral) 104a, since the device 104a has been registered in the MIB database, it is considered authenticated, so that any information received from Device-A is considered to have come from an authenticated device 104a).

However, Beecroft, as modified by Choi and Takahashi, do not specifically describe an authentication unit for authenticating a device-related information, although registering a device's characteristics in a MIB database can be considered a form of authentication.

In the same field of endeavor, Castaldi et al. disclose the claimed UI display apparatus, further comprising an authentication unit for authenticating whether or not the device-related information obtained by said obtainment unit has been sent from an authorized device (Fig. 5, checkbox 420 that shows means to enable encryption while displaying information, Fig. 7 that further shows use of key 56 to authenticate received information 54; paragraphs 0047-0051 that describe encryption and subsequent decryption of information received by a display device, and use of algorithms such as asymmetric key-based algorithm, symmetric key-based algorithm, etc. to authenticate the validity of the received information, thereby disclosing using an authentication unit for authenticating whether or not the device-related information obtained by said obtainment unit has been sent from an authorized device).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide an authentication unit operable to authenticate whether or not the device-related information obtained by said obtainment unit has been sent from an authorized device, as taught by Castaldi et al., in the UI display apparatus of Beecroft, as modified by Choi and Takahashi, so as to ensure the security and authenticity of the received data.

Consider **claim 12,** and **as it applies to claim 9 above,** Beecroft, as modified by Choi, Takahashi and Castaldi et al., show and disclose the claimed UI display method, further comprising an authentication step of authenticating whether or not the device-related information obtained in said obtainment step has been sent from an authorized

device, using an identifier to identify the device, wherein in said display step, the device-related information is displayed in the case where it has been authenticated in said authentication step that the device-related information is valid (in Takahashi reference, Figs. 1-2 and paragraphs 0050-0055 which disclose associating a registered name (e.g. "Device-A") in a MIB database for an MFP (Multi-Function Peripheral) 104a, since the device 104a has been registered in the MIB database, it is considered authenticated, so that any information received from Device-A is considered to have come from an authenticated device 104a); and

(in the Castaldi et al. reference, Fig. 5, checkbox 420 that shows means to enable encryption while displaying information, Fig. 7 that further shows use of key 56 to authenticate received information 54; paragraphs 0047-0051 that describe encryption and subsequent decryption of information received by a display device, and use of algorithms such as asymmetric key-based algorithm, symmetric key-based algorithm, etc. to authenticate the validity of the received information, thereby disclosing using an authentication unit for authenticating whether or not the device-related information obtained by said obtainment unit has been sent from an authorized device).

Conclusion

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If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Tonia Dollinger can be reached on (571) 272-4170. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

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/K. G. B./
Examiner, Art Unit 2443

December 8, 2009

/George C Neurauter, Jr./

Primary Examiner, Art Unit 2443